

It is here noted that, in a known manner, the different sections of the whole mass spectrometer apparatus or device would be provided with appropriate pumps to maintain the desired pressure. Additionally, these pumps, in known manner, can be cascaded. For example, a roughing pump maintaining a pressure of the order of a few Torr can also be used to backup a higher performance pump maintaining pressures of the order of mTorr or lower in the ion optics compartment. At 49 in Figure 2, and also Figures 3-9, there is shown an opening for connection to such a pump.

IN THE CLAIMS

Please substitute the following amended claims for corresponding claims previously presented. A copy of the amended claims showing the requested revisions is attached.

1. (Amended) A mass spectrometer system comprising:

an ion source for producing an ion source stream comprising sample ions and neutrals;

an ion interface;

a reaction/collision cell section for processing the ions received from the ion interface, with the ion interface providing an interface for the ion source stream between the ion source and the reaction/collision cell section; and

an ion-neutral decoupling device provided between the ion interface and the reaction/collision cell section, to provide substantial separation between ions and neutral particles.

6. (Amended) A method of operating a mass spectrometer system, in which ions are generated and processed, the method comprising:

(i) supplying a sample to an ion source and generating an ion source stream, including sample ions and unwanted neutral particles;

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